

**REMARKS**

Applicants respectfully request the Examiner to enter this Amendment; to reconsider all objections; to reconsider the requirement for restriction in its entirety or at least re-join all the claims upon indication of allowability of claims 1-2 and 7-19; and, after reconsidering all rejections, to pass this case on to an allowance.

The new Abstract is a single paragraph.

Applicants amended claim 1 to reflect language presented in other claims before this Examiner while avoiding any narrowing of claim scope.

Applicants also corrected inadvertent editorial oversights in claims 14 and 18 without narrowing claim scope.

**Please reconsider and withdraw the requirement for restriction.**

Applicants respectfully request the Examiner to reconsider and withdraw the requirement for restriction. The rationale urged for the requirement for restriction seems misplaced.

"[T]he Examiner must examine [all claims] on the merits, even though [the application] includes claim to independent district inventions." MPEP §803 (Rev. Feb. 2000). The MPEP in Section 803 stresses this should be the outcome when the search and examination of an application can be made without serious burden.

The search in this case was *prima facie* without serious burden since the Office Action relies on references cited in the European Search Report, compare PTO-892 form with the Annex to the European Search Report. The record thus shows there was a search by another examining authority, the search plus results from the other examining authority are of record herein, and the Office Action relies upon documents that were cited in such other search report.

The Examiner is therefore respectfully requested to withdraw the requirement for restriction. Applicants otherwise, in the alternative, respectfully request an Examiner's Declaration to supply facts to justify the requirement for restriction.

**Traversing the rejection:**

Claims 1, 2, 7 and 10-12 define novel inventions over GB 1 379 019, U.S. Patent No. 3,787,473 and U.S. Patent No. 3,978,240.

The present inventors unexpectedly found that said flavour precursors wherein R<sub>2</sub> represents a C<sub>1</sub>-C<sub>18</sub> alkanol, glycerol, or mono-, oligo- or polysaccharide wherein the oxygen of the -O-R<sub>2</sub> moiety is attached to a primary carbon atom have excellent properties in enhancing and imparting flavour to foodstuffs. During heating of the foodstuff in the presence of water, the flavour precursor is converted into the desired flavour compound. The present inventors have found that flavour precursors, wherein the -Q-R<sub>2</sub> moiety is attached to a primary carbon atom rather than to a secondary or tertiary carbon atom, are considerably more stable upon heating when the food is prepared for consumption, *i.e.*, the present flavour precursors have a lower rate of hydrolysis upon heating. These flavour precursors can thus advantageously be used in applications wherein a foodstuff or beverage is kept heated for an extended period of time, such as foodstuffs and hot (canned) beverages that are sold from dispensers or vending machines that are continuously heated. In such applications, it is desirable to have the volatile flavour released from the precursor more slowly so as to ensure that the foodstuff still contains sufficient amounts of the volatile flavour when it is consumed, even after being kept heated for a considerable period of time, *e.g.*, after several weeks. If the flavour precursors according to the prior art would be used in these applications, the flavour impact will be lost too rapidly as a result of heat induced degradation of the unstable and volatile flavour.

The present flavour precursors hae the formula R<sub>1</sub>-S-CO-O-R<sub>2</sub> wherein R<sub>1</sub> represents a heterocyclic radical and wherein R<sub>2</sub> is derived from a group of primary

alcohol compounds consisting of C<sub>1</sub>-C<sub>18</sub> alkanols, glycerol and oligo and polysaccharides wherein the oxygen of the -O-R<sub>2</sub> moiety is attached to a primary carbon atom.

On the other hand, the references do not describe such compounds, nor would they have suggested the molecular modifications required to reach the claimed inventions.

Van de Heijden et al. (GB 1,379,019) disclose flavour precursors comprising a diester of monthiocarbonic acid containing radicals characteristic of a flavouring thiol, a secondary or tertiary alcohol and monothiocarbonic acid (c.f. claim 1), and more in particular flavour precursors having the formula R<sub>1</sub>-S-CO-O-R<sub>2</sub> wherein R<sub>1</sub> represents an optionally substituted alkyl, homo or heterocyclic radical and wherein R<sub>2</sub> represents a secondary or tertiary hydrocarbyl group containing 3-20 carbon atoms attached to the oxygen via a bond with the secondary or tertiary carbon atom.

Van de Heijden et al. (US 3,787,473) disclose flavour precursors having the formula R<sub>1</sub>-S-CO-O-R<sub>2</sub> or comprising a diester of monothiocarbonic acid or R<sub>5</sub>-S-CR<sub>6</sub>H-S-CO-O-R<sub>2</sub> wherein R<sub>1</sub> represents an optionally substituted alkyl, homo or heterocyclic radical and wherein R<sub>2</sub> represents a secondary or tertiary hydrocarbyl group containing 3-20 carbon atoms attached to the oxygen via a bond with the secondary or tertiary carbon atom.

Van de Heijden et al. (US 3,978,240) disclose flavour precursors having the formula R<sub>1</sub>-S-CO-O-R<sub>2</sub> wherein R<sub>1</sub> represents a substituted or unsubstituted alkyl, homo or heterocyclic radical having up to 10 carbon atoms and not more than two hetero atoms selected from the group consisting of oxygen and sulphur and wherein R<sub>2</sub> represents a secondary or tertiary hydrocarbyl group containing 3-20 carbon atoms attached to the oxygen via a bond with the secondary or tertiary carbon atom.

Accordingly, Applicants submit that neither Van Heijden et al. (GB 1,379,019), Van der Heijden et al. (U.S. Patent No. 3,787,473) nor Van der Heijden et al. (U.S. Patent

Appl. No. 09/899,825  
Amdt. dated July 7, 2004  
Reply to Office Action of April 7, 2004

No. 3,978,240) anticipate the subject matter of present claims 1, 2, 7 or 10-12. The flavour precursors represented by the formula  $R_1-S-CO-O-R_2$ , wherein  $R_2$  represents a hydrocarbon-group attached to the oxygen via a bond with a primary carbon atom, are not disclosed by any of the cited documents. If the Examiner disagrees, Applicants respectfully request the Examiner to point out the enabling written disclosure in each of the cited documents that supports the rejection.

Applicants submit that the cited prior art documents neither disclose the present flavour precursors, nor would they have suggested to the skilled person that such substances would be useful as flavouring ingredients, or even that they would have advantages as explained hereinabove. Since the cited references very specifically teach that the oxygen in the  $-O-R_2$  moiety is attached to a secondary or tertiary carbon atom in  $R_2$ , a person of ordinary skill in the art would not have been motivated to deviate from these explicit teachings, especially since the cited documents apparently contain no direction or information as to the effect of or the reason for such a deviation. Applicants therefore submit that there would have been no suggestion or teaching leading an ordinary skilled person to the present claimed inventions.

**Conclusion:**

Applicants have endeavored to respond fully to the Office Action and respectfully solicit favorable reconsideration coupled with a Notice of Allowance as to all claims.

Respectfully submitted,

By:



Kendrew H. Colton

Registration No. 30,368

**CUSTOMER NO. 42798**

FITCH, EVEN, TABIN & FLANNERY  
1801 K Street, NW - Suite 401L  
Washington, DC 20006-1201  
Telephone: (202) 419-7000  
Facsimile: (202) 419 -7007